ISO 24187:2023-09 (E)

Principles for the analysis of microplastics present in the environment

Contents

Page

Foreword ... **iv**

Introduction ... **v**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 General aspects ... **2**

5 General requirements for all analytical steps ... **2**

6 Identification of appropriate detection methods ... **3**
6.1 General ... 3
6.2 Detection techniques ... 4
6.3 Identification of objective to be addressed ... 4

7 Sampling of water ... **5**
7.1 General ... 5
7.2 Sample volume ... 5
7.3 Mesh sizes ... 6
7.4 Filter materials ... 6

8 Sampling of terrestrial, semiterrestrial and subhydric soils ... **6**
8.1 General ... 6
8.2 Sampling of terrestrial soils ... 6
8.3 Sampling of semiterrestrial soils ... 7
8.4 Sampling of subhydric soils (sediments) ... 7

9 Sampling of air ... **7**
9.1 Indoor air ... 7
9.2 Outdoor air ... 7

10 Sampling of sludges and other similar materials ... **7**

11 Sampling of mineral and other inorganic materials ... **8**

12 Sampling of biota ... **8**

13 Sample preparation ... **8**
13.1 General aspects ... 8
13.2 Drying ... 9
13.3 Milling and grinding ... 9
13.4 Removal of inorganic matter ... 9
13.5 Removal of organic matter ... 9

14 Data processing ... **10**
14.1 General aspects ... 10
14.2 Single spectra/chromatogram interpretation ... 10
14.3 Interpretation of large spectra/chromatogram data sets ... 10

15 Aspects of analytical quality assurance ... **11**
15.1 Reference materials ... 11
15.2 Performance of interlaboratory comparison tests ... 12

Annex A (informative) **Advanced Data Processing** ... **14**

Bibliography ... **20**